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BIOGRAPHIES OF SELECTED SOVIET SCIENTISTS

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## F O R E W O R D

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## BIOGRAPHIES OF SELECTED SOVIET SCIENTISTS

Following are translations of the biographies of those selected Soviet scientists whose names are listed in the table of contents. Bibliographic information on the sources of these biographies is contained with each item.

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NATALIYA IL'YINICHNA BLOK

Following is the translation of an article by S.T. Kishkin, N.M. Popova, N.F. Lashko, M.N. Kozlova and K.P. Sorokina published in Zavodskaya Laboratoriya, Moscow, Vol. 27, No. 2, 1961, page 246. /

Nataliya Il'yinichna Blok, an outstanding Soviet scientist in the field of analytical chemistry, was 70 years old in October of 1960.

The fruitful scientific research and pedagogical work conducted by Nataliya Il'yinichna is devoted to the development and perfection of analytical chemistry and to the development of its theoretical basis.

Extensive scientific erudition, tireless energy in the search for the new, an exceptional level of organization, all permit Nataliya Il'yinichna to resolve various problems that occur in the production of new construction materials. New methods for phase analysis of nickel, titanium, aluminum, chromium and iron base alloys were developed for the first time under her direct guidance.

The application of these methods permitted the refinement of many problems pertaining to the theory of alloy and thermal processing; it also allowed a study of phase transformations in compound refractory alloys.

For a period of approximately 35 years N.I. Blok was engaged in pedagogical work and headed departments of analytical chemistry in a number of higher educational institutions of Moscow (Institute of National Economy imeni G.V. Plekhanova, The Mining Academy, The Steel Institute imeni Stalina, The Textile Institute, The Moscow Aviation Institute). The lecture courses developed by her were always marked by orderliness and conciseness and left a vivid impression of something new and progressive with the listeners.

N.I. Blok authored many scientific works, including a monograph on qualitative chemical analysis, which is a favorite reference work of Soviet chemists; this book was published in China, Germany, Poland and Bulgaria.

Nataliya Il'yinichna's great devotion to science, her contact with people, faithful service to her profession and a great sense of duty, as well as her modesty and selflessness, her sensitivity and responsiveness, brought her the well earned love and

respect of her friends.

Let us wish dear Nataliya Il'yinichna good health, many long years and successes in her creative work for the benefit of Soviet science.

### YAROSLAV GEYROVSKIY

Following is the translation of an article by R. Kal'vod in Zavodskaya Laboratoriya, Moscow, Vol. 27, No. 2, 1961, pages 243-245.

Academician Yaroslav Geyrovskiy [Jaroslav Heyrovsky] was 70 years old on 20 September 1960. He is the inventor of one of the most widespread methods of electrochemical analysis--polarography.

Yaroslav Geyrovskiy decided to study mathematics, physics and astronomy while still in the gymnasium. In 1909 he enrolled in the Department of Philosophy of the Karlov University at Prague. At that time the work conducted by a British chemist, W. Ramsay, discoverer of inert gases, was getting widespread recognition. Young Geyrovskiy was so interested in these discoveries that he asked his father for permission to continue his study of chemistry at the University of London (1910-1914). His teacher was G.F. Donnan, a well known electrochemist, who, by suggesting that Geyrovskiy write his thesis on the theme "On the Electrode Potential of Aluminum," determined his career as an electrochemist. Geyrovskiy was able to complete his university education only after the war. In 1918 he presented his doctoral dissertation at the Karlov University in Prague, and in 1921, a doctoral dissertation on natural sciences in London.

He was brought to the path which led to a discovery of a new field of science--polarography, when Professor Bogumil Kuchera asked him a question about the electrocapillarity of mercury during his doctoral examination in physics. Later, in a discussion, Kuchera directed the attention of his student to the anomalies of electrocapillary curves and advised him to study that problem in greater detail. In that manner Geyrovskiy became acquainted with the dropping mercury electrode, which he used to measure the surface tension of polarized mercury. After numerous measurements failed to bring him to his goal, Geyrovskiy, who was then an assistant at the Chemical Institute and was working under Professor Boguslav Brauner, D.I. Mendeleev's friend, attempted to measure the current passing through the solution, instead of weighing the mercury drops. This revealed the remarkable qualities of the dropping mercury electrode for electrolysis. At the present time Geyrovskiy devotes his entire attention to his new discovery--electrolysis with a dropping mercury electrode.

The first article on that method was published in 1922 in Khimicheskiye Lisny (Pages of Chemistry). Geyrovskiy read a lecture on the results of his work for the first time in 1923 at a session of the Faraday Society in London. An important subsequent turning point in the development of this new method occurred in 1924 when Geyrovskiy, together with his Japanese student Shikata, constructed an instrument that automatically recorded the curves depicting the dependence of the current on tension. They named that instrument a "polarograph." Thereby the time required for the entire process of recording the curve was shortened from a matter of hours to minutes.

A number of scientific workers throughout the world, in striving to learn about this method, visited the Physical-Chemical Institute of Karlov University, which was directed by Yaroslav Geyrovskiy.

In 1928 Professor Geyrovskiy, together with Professor Votochko began the publication of a magazine in the English and French languages called Collection, which is still being published. Professor Geyrovskiy's scientific-literary activity is very broad. Even a partial enumeration of original works by Professor Geyrovskiy published in magazines, as well as that of his books, which he wrote in a number of languages, would require several pages.

Professor Geyrovskiy demonstrated the polarographic method at a number of European laboratories, as well as in the USA, where he spent a considerable amount of time.

Geyrovskiy's method was introduced in the Soviet Union by Academician V.I. Vernadskiy, who visited Geyrovskiy in 1932 and sent a student of his, A.P. Vinogradov, who is now an academician, to work under him. V.I. Vernadskiy prepared a Russian language edition of a book by Geyrovskiy on polarography, entitled Polyarograficheskiy Metod (The Polarographic Method) (published in 1937 at Leningrad; it was translated by Varasova, Geyrovskiy's Soviet student). In 1934 Professor Geyrovskiy, on the invitation of the Soviet government, attended a congress marking the 100th anniversary since the birth of D.I. Mendeleev. During that visit Geyrovskiy read lectures in Moscow and Khar'kov. After his return, in reading a lecture about Soviet science at the Karlov University at Prague, Geyrovskiy devoted special attention to the great successes and the splendid future of Soviet science and finished his lecture with the following words: "If we want to be in step with world scientific development, we must learn the Russian language within the next five years."

Professor Geyrovskiy received the decree of the Czech government founding the Polarographic Institute in 1950 as the greatest success of his life. The field of science which he created and for the development of which he worked so diligently for 28 years received governmental recognition. This seemed to provide an impetus for an intensification of work in that field. Professor Geyrovskiy is developing a method that derives from classic

polarography--oscillographic polarography using alternating current.

Professor Geyrovskiy is known as an outstanding teacher; he attracted a number of devoted workers, who are at the present time working with him in his field. He sets an inspiring example for his co-workers, who often forget how long a regular working day is. On Sunday mornings it is frequently possible to see Professor Geyrovskiy strolling through the Prague Kremlin to his institute, which is situated in a romantic setting of the Prague countryside. "During such free days it is the best time to work since everything is peaceful and I am not detracted by official duties."

A spirit of collectivism predominates at the institute not only in work, but also in various social undertakings, such as the traditional annual trips to the football games. Foreign guests who may be working at the institute at that time are also invited. There are also traditional social evenings that are held each year, to which Professor Geyrovskiy invites all the workers and their families. During such an evening the winners of a so-called polarographic competition are announced. This competition was organized by Professor Geyrovskiy as an incentive for the young workers. The award of an honorary diploma is accompanied by a substantial monetary prize.

At the present time the polarographic method is prevalent throughout the world. Polarographic centers, or schools, which participate in the solution of both theoretical and practical problems are found in Japan, the USA, Britain, Italy, Germany, and, of course, in the USSR. The Soviet Union occupies a leading position in the number of monographs, publications and investigations made in numerous laboratories from Moscow to Kishenev and Alma-Ata, as well as in the development and production of polarographic apparatus, including that for methods derived from classic polarography.

All of these centers maintain a constant contact with Professor Geyrovskiy's institute, which is evident from the thousands of visitors. The guest book contains signatures of young disciples of polarography next to the signatures of Nobel Prize winners Powell, Raman, Cockcroft. One Soviet guest wrote: "...I am very happy that I had the opportunity to visit the Polarographic Mecca, and to meet its priests; it will be of great benefit to my future work...."

The scientific attainments of Professor Geyrovskiy were rewarded by the Czechoslovakian government with a state prize and the Order of the Republic. Among his foreign awards it is possible to point out that he won a Nobel Prize in Chemistry for 1959, and a silver medal from the Polarographic Society in London. Geyrovskiy is an honorary member of numerous academies of science (USA, Hungary, GDR, India) and has honorary doctoral degrees from several universities; his most recent honorary degree came from the Sorbonne in Paris.



We all join in wishing Ya. Geyrovskiy an even greater award  
--good health and a long life, so that he could continue to work  
fruitfully and to guide our own work for many years to come.

VSEVOLOD ALEKSANDROVICH IZMAIL'SKIY

Following is the translation of an unsigned article published in Khimiya v Shkole, Vol. 16, No. 2, Mar./Apr. 1961, page 96. 7

The 75th birthday and the 50th anniversary since the beginning of the scientific-educational career of a distinguished scientific and technological worker, professor, doctor of chemical sciences, Vsevolod Aleksandrovich Izmail'skiy was marked by the chemistry-pedagogical workers during a session of the Academic Board of the Scientific Research Semi-Product and Dye Institute imeni K. Ye. Voroshilova.

All those who extended their congratulations to him unanimously pointed out the great achievements made by the scientists in the development of our chemical science, our chemical industry and in the training of chemistry-pedagogical personnel. V.A. accomplished a truly prodigious amount of work which is reflected in 150 works of great theoretical importance and practical significance.

One of the principal trends in his scientific creativity is a study of the chemistry of organic dyes and the color of organic compounds. In 1913-1951, long before the German, American and English chemists started work in that field, V.A. came to the conclusion that the true structure of a dye is characterized by a certain intermediate state, which he called "mesostate" (mezosostoyaniye), and that the colors of the compounds are associated specifically with that state. Further work premitted V.A. to establish a law pertaining to the association of the bathochromic shift in absorption with the displacement of electrons in the molecule. As a result of these works (basically), the viewpoint that the color is due to the molecular fine structure of organic compounds, became widespread. On the basis of the electronic structure of chromophore groups, V.A. evolved a new classification of them, which received universal recognition in the scientific world.

V.A.'s entire scientific activity in the field of dyes was conducted in close collaboration with the tasks confronting our chemical industry; he was one of the pioneers who created an aniline dye industry in our country.

V.A. also conducted successful research in the production of drugs, many of which are used in medicine at the present time. He

conducted research in the field of bismuth and tartaric acid compounds and derived a valuable drug, bismoverol; in investigating the arsenic acids in connection with the chemistry of salvarsan he obtained valuable drugs, such as osarsol (preparation against whipworm). During the Great Patriotic War V.A. obtained a drug consisting of water soluble camphor (camphor VI) for intravenous or subcutaneous injection to prevent shock in cases of wounds or complex surgical operations.

It is impossible to isolate V.A.'s pedagogical activity from his scientific endeavors. A whole army of V.A.'s former students at the Industrial-Pedagogical Institute imeni K. Libknekhta and at the Pedagogical Institute imeni V.P. Potemkina are now working as instructors in chemistry in the higher and secondary educational institutions of our country. V.A. compiled several guides for the training of future teacher-chemists, including a collection of exercises in organic chemistry which received widespread recognition not only in our country, but abroad as well.

## ANATOLIY FEDOROVICH KAPUSTINSKIY

Following is the translation of an article by K.B. Yatsimirskiy in Zhurnal Neoroganicheskoy Khimii, Vol. 6, No. 3, Moscow, March 1961, pages 513-517. 7

Professor Anatoliy Fedorovich Kapustinskiy, Doctor of Chemical Sciences, a Corresponding Member of the Academy of Sciences USSR, and a distinguished Soviet scientist-chemist died on 26 August 1960 after a prolonged and serious illness. We lost a great research worker in the field of dynamics of inorganic chemical reactions, a talented teacher and a remarkable lecturer.

Anatoliy Fedorovich Kapustinskiy was born on 29 December 1906 in Zhitomir. After graduating from a secondary school in Moscow in 1922, he entered the Moscow State University and in 1929 graduated from the Department of Chemistry and began working at the All-Union Institute of Applied Mineralogy. He worked there until 1941.

Anatoliy Fedorovich's outstanding abilities manifested themselves early. His first published works in Soviet and foreign periodicals appeared in 1929-1930. When he was 27 years of age (in 1934) he became a professor and Chairman of the Department of Physical Chemistry of the Gor'kovskiy State University. A year later the People's Commissariat of Heavy Industry commandeered him to Western Europe and America to study scientific-research work. For a period of time he worked in the laboratory of an honorary Academician of the Academy of Sciences USSR, an outstanding American scientist, G.N. Lewis (University of California, USA). In the autumn of the same year he presented a report entitled "Problems of Crystal Chemistry."

A.F. Kapustinskiy became a doctor of chemical science in 1937 as well as a professor in charge of the Department of Physical Chemistry of the Moscow Steel Institute.

During the Great Patriotic War Anatoliy Fedorovich Kapustinskiy headed the Department of Physical Chemistry of the Kazan' State University. From 1943 until his death he was in charge of the Department of Inorganic and General Chemistry of the Moscow Chemical-Technological Institute imeni D.I. Mendeleyeva.

In 1939 A.F. Kapustinskiy was elected to corresponding membership in the Academy of Sciences USSR.

From 1941 until his death he worked at the Institute of General and Inorganic Chemistry of the Academy of Sciences USSR.

Anatoliy Fedorovich devoted over 30 years of his life to scientific creativity and to pedagogical work. During that period of time he published approximately 300 works, including several books. Exceptionally intensive work was one of A.F. Kapustinskiy's distinguishing peculiarities.

Throughout his life Anatoliy Fedorovich combined experimental scientific research of the highest level with brilliant theoretical research in a most remarkable manner.

Anatoliy Fedorovich devoted most of his time to research in the thermodynamics of inorganic crystalloid substances. He started research in that field while still a university student, and continued it in the Institute of Applied Mineralogy with the support of his teachers--I.A. Kablukov and E.V. Britske, and, finally, transferred his research in that field to the Moscow Chemical-Technical Institute imeni D.I. Mendeleeva. All of Anatoliy Fedorovich's characteristic creative peculiarities were manifested in his work on the thermodynamics of inorganic crystalloid substances: the scope of his research work, exceptional perception, and the application of the most modern experimental methods.

The figures obtained by A.F. Kapustinskiy and by his school were incorporated in reference books and monographs. The high degree of precision and the reliability of these figures will make them last for a long time; they quite justifiably became a part of the golden fund of contemporary experimental thermochemistry and serve as a remarkable monument to their creator.

The excellent experimental work accomplished by Anatoliy Fedorovich Kapustinskiy was combined with extensive and original theoretical generalizations. A characteristic feature of his creativity was the synthesis of contiguous fields of knowledge and a special interest in the areas where different scientific disciplines "overlap." His interest in a theoretical generalization of experimental data on the thermodynamics of inorganic crystalloid substances brought him to crystal chemistry.

Anatoliy Fedorovich worked in crystal chemistry all his life. That science is obligated to him for the formulation of the so-called "second principle" of crystal chemistry, which states: "The energy of a crystal and the peculiarities dependent on it are determined by the number of ions, their radius and their polarization properties" (1933).

He was best known among the chemists of the entire world for his very simple equation for computing the energy of the lattice, known as the "equation of Kapustinskiy." That equation was suggested for the first time in 1933; subsequent refinements were made in 1943 and, finally, in 1956 (in collaboration with E.B. Yatsimirskiy). None of the refinements altered the basic merit of the equation: x-ray structural analysis is not required in the computation of the energy of the crystal lattice; it is merely necessary to know the formula of the salt, as well as the charges

and the radius of the ions that are a part of it. With the aid of that equation, which is distinguished by an adequate degree of precision, as substantiated by recent tests, it is possible to compute the thermochemical data, and with the presence of reliable thermochemical data it is possible to compute the chemical characteristics of the crystal ions (the radius).

During all the subsequent years, research in the field of thermodynamics and crystal chemistry of inorganic compounds forms the bulk of Anatoliy Fedorovich Kapustinskiy's scientific endeavors.

Experimental research in thermodynamics encompasses a large number of inorganic compounds. Together with his students he derived new data on sulfide, oxide, selenite, telluride, halogenate, peroxide, carbonate, oxalate and other compounds. The publication of a work entitled Termicheskiye Konstanty Neorganicheskikh Veshchestv (Thermal Constants of Inorganic Substances) (1949) was of great significance to the development of our thermochemistry; A.F. Kapustinskiy actively participated in the compilation of that work in collaboration with E.V. Britske, B.K. Veselovskiy, L.M. Shamovskiy, L.G. Chetsova and B.I. Anvayer. A.F. Kapustinskiy, in collaboration with his students (Yu. I. Barskiy, O. Ya. Samoylov, and I.I. Lipilina) evolved new methods for thermodynamic research of inorganic substances and created new types of instruments.

Starting with 1946 extensive work in the thermochemistry of complex compounds was started in the initiative of A.F. Kapustinskiy and with his constant support. This work was summarized in a monograph and in numerous articles. Together with his students (A.A. Shidlovskiy, B.M. Yakushevskiy, V.A. Solokhin and others) A.F. Kapustinskiy conducted a number of investigations in the thermochemistry of various groups of complex compounds.

One of the important generalizations in the field of thermodynamics made by A.F. Kapustinskiy is the development and formulation of a principle analogous to a third inception of thermodynamics: "When a body is compressed to a point where its volume is close to zero, the properties of such bodies cease to depend on their volume." This principle yielded an analogy concerning the behaviour of substances subjected to very low temperatures and very high pressures, an equality under these conditions between the change in the enthalpy and the free energy, the approach of the entropy to zero under ultra high pressures.

Further research in the field of crystal chemistry permitted A.F. Kapustinskiy to formulate some very important regularities in the changes in the radius of ions of elements depending on the charge of the ion and the number of electrons. The last few years of research in these regularities brought the author to the so-called drop model of atoms and ions. In 1949 A.F. Kapustinskiy introduced a new constant--the "electro-negativity in crystal chemistry."

In all of his scientific work A.F. Kapustinskiy relied extensively on D.I. Mendeleev's periodic law. He established an

association between the entropy of ions in solution and the position of the corresponding elements in D.I. Mendeleev's system (1944). Later (1948) a relationship between the temperatures of formation of various substances related to the fram-equivalent and the order number of the elements entering into their composition was established. This relationship was given in the form of a "rule of thermochemical logarithmics," used to correct the existing thermochemical data and for a close evaluation of a number of unknown thermochemical constants.

A.F. Kapustinskiy suggested a new concept concerning the architectonics of the periodic system (1953) which consisted of four cycles. A.F. Kapustinskiy's ideas on the electronic isomerism of atoms (1956) are of particular interest: under high pressure a change in the electronic configuration of the atoms and, in connection with that, their existence in two isomeric forms is possible. These concepts lead to a new system of "degenerated" atoms, to a new periodicity and to a new number of periods (six instead of eight). Such an isomerization is possible with a pressure in the order of from 50 to 120 thousand atmospheres. With a further increase in pressure the individual properties of the elements are lost and only "featureless (restricted) shells, immersed in the general electron plasma" must exist. In that manner the limits of the applicability of the periodic law are indicated.

With the development of A.F. Kapustinskiy's scientific research the scope of his scientific interests also expanded. His research in the thermodynamics of solutions and the processes of solution, in the physical-chemical analysis of various systems, and in geochemistry are well known.

The work on the thermodynamics of solutions, which A.F. Kapustinskiy conducted in collaboration with many of his students (V.A. Mal'tsov, B.I. Anvayer, V.R. Klokman, O. Ya. Samoylov, I.I. Lipilia, B.M. Yakushevskiy, S.I. Drakin, N.M. Selivanova, I.I. Rusavin and others) led to the experimental finding of a number of thermal properties of ions in solutions (entropy, heat capacity, apparent volumes, heat conductivity). These values are associated with such simple characteristics of the ions as their charges and radius. Work conducted in collaboration with O. Ya. Samoylov (1952) on the thermochemical method of finding coordinated numbers of ions in solutions was carried on.

Widespread use is being made of works on the solubility of sulfides, computed by A.F. Kapustinskiy in 1940 on the basis of their more precise and better verified thermodynamic characteristics. The basic premises for the creation of a theory of solubility of ionic crystals were formulated by A.F. Kapustinskiy (together with K.B. Yatsinirskiy) in 1948.

The work accomplished by A.F. Kapustinskiy in collaboration with his students (B.A. Shmelev, S.I. Drakin, Yu. M. Golutivin, A.N. Zhdanova, Yu. P. Parskiy and others) in the field of the

physical-chemical analysis is characterized both by the fact that it attracted new properties for the study of various systems (energy of activation), as well as the fields subject to research.

A.F. Kapustinskiy's theoretical research permitted him to evolve an original theory of the structure of the earth's globe. This theory was presented for the first time by him at a geochemical symposium in Paris in 1957.

During the last few years A.F. Kapustinskiy expressed a number of interesting ideas about the mutual influence of atoms in the internal sphere of complex compounds.

Over 27 works authored by Anatoliy Fedorovich are devoted to the history of science in our country and abroad; from 1957 he was the chairman of the National Union of Soviet Chemical Historians /See Note 7/.

/Note 7/ A list of works by A.F. Kapustinskiy was published by the Academy of Sciences USSR in 1960 in a separate book.

A.F. Kapustinskiy was one of the most remarkable pedagogues of the Soviet higher school system. His lectures were heard by thousands of students of the Moscow, Kazan' and Gor'kovskiy Universities, the Moscow Chemical-Technological Institute imeni D.I. Mendeleeva and at the Moscow Steel Institute. He read a series of lectures at universities and institutes in the German Democratic Republic and the Polish People's Republic. He presented popular public lectures on many occasions before a wide audience. A.F. Kapustinskiy was an active participant of many congresses, meetings and conferences in our country and abroad (San Francisco, Budapest, Paris).

A.F. Kapustinskiy worked actively in the publishing field for a period of 20 years and occupied the position of deputy editor of the magazine called Izvestiya Akademii Nauk SSSR OKhN (News of the Academy of Sciences USSR, Department of Chemical Sciences); he was a member of the main editorial board of the second edition of the Large Soviet Encyclopedia.

Many scientific co-workers, and post graduate students worked in his laboratories--some of whom became independent researchers, department chairmen, and enterprise directors.

The government valued the achievements made by Anatoliy Fedorovich Kapustinskiy very highly--he was awarded the Order of the Red Banner of Labor with medals.

We will always remember Anatoliy Fedorovich Kapustinskiy.

Death cut short A.F. Kapustinskiy's life at the peak of his creative energy. The extensive contributions made to physical and inorganic chemistry will always remind one of that remarkable scientist and person, and about the great work he did for our science.



## VASILY STEPANOVICH KISELEV

Following is the translation of an unsigned article in Zhurnal Vsesoyuznogo Khimicheskogo Obshchestva im. D.I. Mendeleeva, Vol. 5, No. 6, 1960, page 704. 7

Doctor of chemical sciences Professor Vasiliy Stepanovich Kiselev died on 19 August 1960 after a prolonged and serious illness. He was 80 years old. Professor Kiselev was the founder of the Soviet varnish and paint industry.

With the death of V.S. Kiselev the chemical industry lost a scientist chemical-technologist with a comprehensive background, a talented organizer, a public spirited citizen, a teacher and a meticulously honest person.

V.S. Kiselev was born in 1881 in the city of Tobol'sk. After graduating from the gymnasium he entered the natural sciences section of the department of physics of the University of Petersburg. After completing the University he was engaged in fruitful work at a varnish and paint factory.

After the Great October Revolution V.S. Kiselev was among the older specialists who went over to the side of the Soviet government during the first few days. He began working with great energy in economic organizations which directed the varnish and paint industry which was just beginning to develop in our country.

In 1918 he was appointed head of the varnish and paint section of the handicraft committee; from 1919 to 1922 he was director of the production department of the Supreme Council of the National Economy USSR; from 1922 to 1926 he was the first Chairman of the "Lakokraska" (Varnish and Paint) Trust; in 1926 he was appointed a deputy director of the Main Chemical Administration (Glavkhim), where he worked until 1930. Work at Glavkhim was conducted under the direct guidance of F.E. Dzerzhinskiy and V.V. Kuybyshev.

During 1929-1930 V.S. Kiselev was the Chairman of the Chemical Industry Export Council and fulfilled the duties of the director of production administration at Vsekhimprom (All-Union Chemical Industry). During 1931 and 1932 he worked in the varnish and paint scientific research institute, and in 1933 he was appointed the chief engineer with the Main Administration of Organic Chemistry, where he worked until 1936.

Along with extensive administrative economic work, V.S. Kiselev was engaged in teaching, and in scientific, literary and public work.

V.S. Kiselev started teaching chemistry and chemical technology in 1920.

From 1923 to 1931 he was in charge of the department of paint technology at the Moscow Tekhnikum of Fats. In 1936 he was elected chairman of the department of paint and varnish technology of the Moscow Chemical Technology Institute imeni D.I. Mendeleyeva where he worked until 1952.

From 1952 to 1957 he was a professor at the Institute of National Economy imeni Plekhanova.

V.S. Kiselev trained and graduated over 500 paint and varnish engineers and a number of candidates of science; many of them now occupy responsible positions in industry and scientific research institutes.

V.S. Kiselev published over 70 works. His scientific interests concerned first of all the field of the chemistry and technology of film-forming substances; he particularly studied the physical-chemical peculiarities of films and substances causing the formation of films as well as the physical-chemical processes taking place in the dehydration of oils.

V.S. Kiselev published a monograph on the technology of varnish and lacquers, which went through several editions and still remains one of the most favorite references of the varnish and paint workers. He prepared a laboratory manual for the higher educational institutions on film-forming substances; he also wrote a popular book on the production of varnish, drying oil and paints, which was translated in a number of countries. V.S. Kiselev's last work (1958) was the book entitled Tovarovedeniye Promyshlennykh Tovarov (Commodity Management of Industrial Goods), written in collaboration with A.M. Shcheglov.

For a period of many years V.S. Kiselev was engaged in extensive public work. From 1928 he actively participated in the work of scientific societies, at first as a member of the Presidium of the Central Bureau of the Engineering Technical Sections with the Central Committee of the Trade Union of Chemistry Workers, then as a member of the Technical Society of Chemists, then of the Committee for the Development of Chemistry with the Council of People's Commissars USSR; he was also a member of the All-Union Chemical Society imeni D.I. Mendeleyeva. On two occasions he was elected the vice-president of that society.

He was awarded the Order of Lenin for his work in mobilizing the chemical workers during the time of the Great Patriotic War.

A bright memory of Vasilii Stepanovich Kiselev will always live in the hearts of his students and colleagues.

MIKHAIL MIKHAYLOVICH KHRUSHCHOV

Following is the translation of an unsigned article in Zavodskaya Laboratoriya, Vol. 27, No. 3, Moscow, 1961, pages 364-365. 7

Mikhail Mikhailovich Khrushchov is 70 years old. He is one of the most distinguished scientists in the Soviet Union in the field of research and testing of materials. After graduating from the Moscow Higher Technical School in 1916 with a title of an engineer-mechanic, M.M. Khrushchov, after several years of work in industry, transferred to scientific work with the Automatic Machinery Institute (NAMI), where he organized and headed a department for research in the field of metallurgy and the technology of automatic machinery production.

From 1940 until the present time M.M. Khrushchov has been working at the Machinery Institute of the Academy of Sciences USSR, where he heads the Resistance to Wear Laboratory.

Mikhail Mikhailovich is a specialist in friction and wear in machines and in mechanical testing of materials. He is also one of the organizers of scientific work in the study of the durability of machines.

Professor M.M. Khrushchov created a school of researchers who are developing a science in the friction and wear of machines in various fields of the national economy. He authored a number of scientific-research works of great scientific and practical value, and created research machinery and instruments. He published a total of over 120 scientific works, including 12 monographs.

On the basis of extensive experimental work M.M. Khrushchov developed a theory of abrasive wear (monograph entitled Issledovaniye Iznashivaniya Metallov--Research in the Wear of Metals). For his work in that field M.M. Khrushchov was awarded a prize in 1957 by the Presidium of the Academy of Sciences USSR.

M.M. Khrushchov created an original theory of anti-friction of a more general nature than all the preceding ones (monographs entitled Prirabotka Podshipnikov i Splavov i Tsapf--The Break-In of Bearing Alloys and Pins, and Ustalost' Babbitov--Bearing Metal Fatigue); he also developed a number of new methods for testing materials, for evaluating their specific qualities under friction; he developed a method for testing the micro-hardness of metals and minerals on the basis of which a new scale of hardness was proposed; he developed a method of standards for a precise determination

of the extent of localized wear of machine parts (the book entitled Opredeleniye Iznosa Detaley Mashin Metodom Isskustvennykh Baz-- Determination of Wear in Machine Parts by a Method of Arbitrary Standards).

M.M. Khrushchov developed a machine for testing abrasive wear under friction against fixed abrasive elements, a machine for testing the wear of metals in active liquid mediums, a machine for testing anti-friction material for friction and wear, an instrument for determining the micro-hardness of metals (for the creation and implementation of that instrument M.M. Khrushchov was awarded the Stalin Prize in 1947), an instrument for the precise determination of wear by the method of cut out holes, and so on.

Mikhail Mikhaylovich is one of the main organizers of All-Union Conferences and Meetings on the friction and wear of machines. In addition to that he is constantly engaged in training scientific personnel. More than 20 candidates' and 5 doctoral dissertations were completed under his direction.

M.M. Khrushchov has for many years been an active participant in the publication of the Zavodskaya Laboratoriya (Plant Laboratory) magazine.

We wish Mikhail Mikhaylovich the best of health for further fruitful work for the benefit of our Motherland.

MIKHAIL ALEKSEYEVICH LAVRENT'YEV

Following is the translation of an unsigned article in Izvestiya Sibirskogo Otdeleniya Akademii Nauk SSR, No. 10, Novosibirsk, 1960, pages 3-4. 7

Mikhail Alekseyevich Lavrent'yev, an outstanding mathematician and mechanical engineer, a talented scientist, and an active public worker of our country will be 60 years old on 19 November 1960.

Mikhail Alekseyevich dedicated himself to science since he was 20 years old and during 40 years of intensive creative labor achieved considerable success in greatly varied fields of mathematics and physics. He is responsible for profound and original research in the finest problems pertaining to the theory of functions of real variables, the set theory, quasi-conformal mappings, the theory of functions of a complex variable, the theory of a stream flow of liquids, the theory of an aircraft wing, the theory of explosion, and other directions in the mechanics of continuous media.

A talented mathematician and a mechanical engineer-theoretician, M.A. Lavrent'yev at the same time is an inventive experimenter; his experiments convincingly and simply provide solutions for the problems at hand.

Mikhail Aleksandrovich spent his entire scientific life in the training of young scientists. His educational work is associated with many of the outstanding higher educational institutions in our country: the MVTU (Moskovskoye Vyssheye Tekhnicheskoye Uchilishche imeni N.E. Baumana -- Moscow Higher Technical School im. Baumana), the Chemical Technological Institute imeni Mendeleyeva, the Moscow State University, the Moscow Physical-Technical Institute (he was one of its founders), and the Novosibirskiy State University.

Love for the scientific youth, an ability to find and to support new talents are characteristic of Mikhail Alekseyevich.

M.A. Lavrent'yev is one of the great organizers of Soviet science. He developed his activities in the Ukraine where he worked as the director of the Mathematical Institute at Kiev and was elected vice-president of the Academy of Sciences Ukrainian SSR.

In Moscow, M.A. Lavrent'yev organized an institute of precision mechanics and computer technology, which was a pioneer venture in this new field in this country. The first high quality electronic computer BESM-1 was created under his direction.

Mikhail Alekseyevich is one of the initiators of the Siberian Department of the Academy of Sciences USSR, with which the last few years of his work are closely associated.

As a result of the tumultuous activity by the personnel directed by him a wonderful city of science is growing before our eyes--the largest scientific center in the eastern part of the USSR.

M.A. Lavrent'yev heads the Institute of Hydrodynamics, the first institute to be formed in the Siberian Department; he also conducts work in the evolution of methods for utilizing explosions in the national economy and directs a department of the Novosibirsk University.

Let us wish this remarkable scientist, an enthusiast of the assimilation of Siberia, many years of life, good health and successful scientific and public work.

SERGEY MIKHAYLOVICH LIPATOV

Following is the translation of an unsigned article in Izvestiya Vvesshikh Uchebnykh Zavedeniy--Tekhnologiya Tekstil'noy Promyshlennosti, No. 2, 1961, pages 163-164. 7

Sergey Mikhaylovich Lipatov, a professor of the Moscow Textile Institute, doctor of chemical sciences and an academician of the Academy of Sciences Belorussian SSR died on 8 January 1961 after a serious illness. We lost an outstanding scientist and a communist who devoted all his knowledge and all of his talents to the further development of our science. S.M. Lipatov was a distinguished specialist in the field of colloidal chemistry and the physical chemistry of polymers. His scientific trends became formulated during the first years of his creative activity and were associated with the physical chemistry of dyeing and the properties of colloidal solutions. His first scientific work was accomplished in the laboratory of the First Sittsenabivnaya Plant.

During 1927-1929 Sergey Mikhaylovich worked at Ivanovo Voznesensk as a director of the central laboratory of the textile trust, and then as an assistant professor at the polytechnical institute. Here he was the first one in the Soviet Union to read a series of lectures on the physical chemistry of dyeing, and in 1929 wrote a monograph entitled *Kolloidno-Khimicheskiye Osnovy Krasheniya* (Colloidal-Chemical Bases of Dyeing), which is the only work of its kind in our country.

During the same period of time he studied the properties of dye solutions, the stability of the solutions, as well as the interaction between cellulose, dyes and electrolytes. The studies of the properties of the solutions brought Sergey Mikhaylovich to the evolution of the syneresis theory. For this work the Russian Society of Physical Chemistry awarded Sergey Mikhaylovich the D.I. Mendeleev Prize.

Sergey Mikhaylovich was one of the first ones in the Soviet Union to start work in the physical chemistry of polymers. In 1929 he established a synthetic fiber laboratory at the Scientific Research Institute imeni Karpova; the All-Union Synthetic Fiber Scientific Fiber Research Institute was later organized on the basis of that laboratory. In 1931 he founded a high molecular weight compounds laboratory and started reading a series of lectures entitled "Compounds of High Molecular Weight" for the first time in a

higher educational institution.

A study of the properties of polymer solutions, the proper dialectical approach to the phenomena being studied permitted Sergey Mikhaylovich to be the first one to present a critique of Kruyt's structural theory as well as Staudinger's theory, by pointing out its oversimplified nature and metaphysical quality. Further work in the field of polymers was conducted by Sergey Mikhaylovich at the Colloidal-Electrochemical Institute of the Academy of Sciences USSR.

In 1940 Sergey Mikhaylovich was elected to membership in the Academy of Sciences Belorussian SSR and transferred his work to Minsk, where, while occupying the position of a vice-president of the Academy of Sciences Belorussian SSR, he conducted extensive work in the creation of a high molecular weight compounds laboratory and in training scientific personnel.

As of 1944 Sergey Mikhaylovich worked as a Professor at the Moscow Textile Institute. He worked there for 17 years.

During his long scientific career he published approximately 200 works and 7 books. He was the first one in the Soviet Union to write monographs on the physical chemistry of polymers: Vysokomolekulyarnyye Sovedineniya (High Molecular Weight Compounds)--1934; Problemy Ucheniya o Liofil'nykh Kolloidakh (Problems in the Study of Lyophilic Colloids)--1941; and Vysokomolekulyarnyye Sovedineniya (High Molecular Weight Compounds)--1943.

The scientific work accomplished by S.M. Lipatov was not only of a theoretical but of a great practical significance. During the last few years of his life in collaboration with the Scientific Research Institute of the knitwear industry, he developed a vacuum method of dyeing knitted products.

Sergey Mikhaylovich was a well-educated person, a very methodical worker, and a talented teacher and lecturer. He devoted considerable attention to the training of young specialists. 25 candidate's and 6 doctoral dissertations were completed under his guidance.

Sergey Mikhaylovich was an active public worker: for a number of years he was a member of the Commission of Experts of the All-Union Dye Academy, a member of the Scientific Technical Council with the Ministry of the Food Industry and a member of the editorial board of a magazine called Kolloidny Zhurnal (Colloidal Journal).

Sergey Mikhaylovich was a modest and a responsive man. He was respected and loved by all those who studied under him or worked with him.

A bright memory of Sergey Mikhaylovich Lipatov, a talented scientist and a perceptive man, will always remain in our hearts.



ONISIM YUL'YEVICH MAGIDSON

Following is the translation of an unsigned article in Meditinskaya Promyshlennost', Vol. 15, No. 3, Moscow, 1961, pages 3-5. 7

Professor Onisim Yul'yevich Magidson, a doctor of chemical sciences and a winner of the Stalin Prize recently celebrated his 70th birthday and the 45th year of his scientific activity.

O. Yu. Magidson graduated from the Moscow University in 1913 and until 1921 worked as an assistant with the Department of Organic Chemistry of Shanyavskiy University, where along with teaching he also did scientific research studying the chemistry of dinaphthyl- and trinaphthyl-methane derivatives.

Along with his pedagogic work O. Yu. Magidson, starting in 1916, began working with problems pertaining to the production of drugs. During that period he developed methods for obtaining salicylic acid, salol, phenacetin and other preparations.

As of May 1919 O. Yu. Magidson, being one of the founders of the VNIKhFI (Vsesoyuznyy Nauchno Issledovatel'skiy Khimiko-Farmatsevticheskiy Institut--All-Union Chemical-Pharmaceutical Scientific Research Institute), organized a synthetic laboratory, which later became the basic laboratory of the institute. There he has been at work continuously up to the present time. His entire 45 year long scientific career has always been devoted to the creation of drugs that are necessary in our country and to the organization of the domestic chemical-pharmaceutical industry.

Along with the solution of practical problems O. Yu. Magidson was the first in our country to start a number of scientific research projects for a systematic study of the association between chemical structure, physical-chemical properties and the biological effects of a substance. O. Yu. Magidson's work in collaboration with his students devoted to a study of the relationship between the chemical structure and the antimalarial effect of quinoline (started working on that problem in 1929) and acridine (started work on that problem in 1932), received a particularly comprehensive development. In order to conduct these investigations, a complex of chemical and biological laboratories were established at the VNIKhFI: synthetic, chemical-therapeutic, and pharmacological laboratories were created in addition to a clinic.

A study of the derivative 6-alkoxi-8-aminoquinoline led to

a synthesis of over 60 new quinoline preparations and many hundreds of semi-finished products and intermediary compounds. Plasmocide was synthesized domestically, the production of which, after clinical study, was quickly implemented into production.

Research in the field of acridine was started by O. Yu. Magidson and his co-workers with the discovery of a new reaction forming mesochlorocridines through the interaction of oxychloride of phosphorus with diphenylaminocarbonic acids, which permitted the compounding of a number of mesochlorocridines. At the same time the relationship between the mobility of chlorine in a meso-position on the substitutes in the acridine ring was studied. The study of antimalarial measures, and of the acridine derivatives led to the evolution of a number of valuable antimalarial drugs and to the development of an industrial method of synthesizing quinacrine.

O. Yu. Magidson's work in collaboration with his co-workers in the field of the synthesis and the search for antimalarial drugs is of great scientific and practical interest. This work was described in more than 20 scientific publications.

A number of projects conducted by O. Yu. Magidson pertain to the structure of anesthetizing substances and the potency of their effect. The derivatives of cinchonic acid, the derivatives of quinoline, isoquinoline as well as those of cotarnine, were all studied. Very active anesthetics were found among the compounds that were evolved. It was determined that in these classes of compounds the anesthetic effect depends on the structure of matter as in the series of derivatives of the n-aminobenzoic acid.

O. Yu. Magidson and his co-workers devote a considerable amount of attention to research in the field of synthesis and to the study of sulfonamide compounds. Along with the solution of practically important problems, as well as the development of industrial methods for obtaining white and red streptocide, sulfidine, sulfazol, norsulfazol, sulfazine and other preparations, synthesis was made in collaboration with chemical therapists and a number of aryl-sulfonamide compounds were studied, among which some very highly active substances were found (sulfantrol, sulfamidoglycine and others).

Greatest significance was attributed to O. Yu. Magidson's work in attempting to find a convenient industrial method of obtaining iodine from oil well water. This work opened a new page in the utilization of the natural wealth of the Soviet Union and resolved the problem associated with the organization of a domestic production of iodine.

As a result of the work conducted by O. Yu. Magidson and his co-workers many tens of complex synthesized drugs were introduced into the chemical-pharmaceutical industry (phenacetin, veronal, hexenal, sonbutal, bromural, adalin, mercuzal, iodoform, pantocide, benzoic acid, plasmocide, quinacrine, rivanol, trypaflavine, novocaine, sovaine, trional, the streptocide group, sulfidine, sulfazol,

norsulfazol, sulfantrol, corazol, nicotinic acid, prozerin, phenamin, cordyamin, phenadon, synestrol, bigumal, chloridine, papaverine, caffeine, theobromine, theophylline, syntomicin, 6-mercaptapurine and others).

Of special significance are the synthetic vitamins--ascorbic acid, vitamin B<sub>1</sub> and folic acid--derived for the first time on a semi-factory scale at the experimental installations of the VNIKhFI.

Many leading scientific workers have developed under O. Yu. Magidson at the VNIKhFI; they presented their dissertations for the academic degrees of candidate and doctor of chemical sciences. O. Yu. Magidson published 98 scientific works; in addition to that he has 58 copyright certificates for his inventions.

Along with scientific work O. Yu. Magidson also devotes considerable attention to scientific-organizational work. For a period of over 12 years he worked with the Pharmaceutical Committee of the Academic Medical Council of the Ministry of Health USSR; for about 12 years he was a deputy director of the VNIKhFI of scientific affairs; he was also a member of the Presidium of the Central Bureau of the Engineering and Technical Section,

a member of the Moscow Council of the Mendeleyev Society and so on.

For his work in the extraction of iodine from oil well water, the Central Council of the Osoviakhim (Please see note below for explanation of abbreviation) awarded O. Yu. Magidson the Prize imeni F.E. Dzerzhinskogo in 1929.

For outstanding achievements in research in the industrial assimilation of new drugs O. Yu. Magidson was decorated with the Order of Lenin in 1941 and 1951, and in 1942 he was awarded the Stalin Prize 1st Class.

At the present time O. Yu. Magidson continues his fruitful work at the VNIKhFI. He directs the laboratory working on the synthesis of heterocyclical compounds, which conducts scientific investigations on the purine, quinosyline, pyrimidine, isoquinoline, and others in order to find new drugs and to develop industrial methods for obtaining them.

The editorial office of this magazine wishes Onisim Yul'yevich Magidson good health and further fruitful work for the benefit of our Homeland.

Osoviakhim (Obshchestvo Sodeystviya Oborone i Aviatsionno-Khimicheskomu Stroitel'stvu -- Society for the Promotion of Defense and Aero-Chemical Development).

ALEKSANDR L'VOVICH MARKMAN

Following is the translation of an unsigned article in Uzbekskiy Khimicheskiy Zhurnal, No. 2, Tashkent, 1961, pages 73-75.

In February of 1961 the personnel of the Central Asia Polytechnical Institute, the personnel of the chemical institutes of the Academy of Sciences Uzbek SSR and of the chemical enterprises of Uzbekistan marked the 70th birthday of Professor Aleksandr L'vovich Markman, a doctor of chemical sciences and a distinguished scientific and technical worker of Uzbekistan. That date also marked the 45th year since the beginning of his production, scientific and pedagogical career.

Aleksandr L'vovich Markman was born in the city of Nikolayev (the Ukraine) in 1891 to the family of a white collar worker. In 1909 he graduated from the gymnasium and in 1914 from the physical-mathematical department (majoring in chemistry) of the Odessa University with a diploma of the 1st degree.

From 1914 to 1918 he was at first the director of a laboratory and then an engineer in a casting shop of the Soyedinenyye Mekhanicheskiye Zavody United Mechanical Plants at Leningrad. From 1918 to the present time he has been working in the oil and fat industry, to which he devoted most of his life.

During the period from 1918-1948 he occupied the positions of a chief engineer at a number of oil and fat union and republican combines and plants, the position of the director of construction of the Kropotkinskiy oil extracting plant; he was also the director of the technical production department and member of the collegium of the Ministry of the Food Industry Uzbek SSR.

Along with production work Aleksandr L'vovich devoted a lot of his time to pedagogical work. He read lectures at the Moscow Technicum of the Oil Industry, he was an assistant professor at the Krasnodarskiy (Kubanskiy) Agricultural Institute, a professor at the Chemical-Technological Institute imeni Mendeleyeva in Moscow, he was also chairman of the Krasnodarskiy Chemical-Technological Institute of the Fat Industry, and from 1944 up to the present time he has been with the Central Asia Polytechnical Institute at Tashkent. As of 1958 A.L. Markman is directing the laboratory on the chemistry of fats at the Institute of Vegetable Matter of the Academy of Sciences Uzbek SSR.

In 1953 Aleksandr L'vovich presented his dissertation on the theme: "Polarographic Investigation of the Process of Hydrogenation in Organic Processes" and was awarded the degree of a doctor of chemical sciences.

Professor A.L. Markman has been conducting multilateral scientific work for a period of over 40 years, which was reflected in many of his articles. Most of them were published in the magazine called Masloboynozhirovoye Delo (The Oil and Fat Business); he was a constant co-worker and a member of the editorial board of that publication. His work during that period of time is principally devoted to problems pertaining to the extraction of vegetable oil, to the hydrogenation of fats, to the production of margarine and to the lintering of cotton seed.

After assuming the post of a Chairman of the Department of Analytical Chemistry at the Central Asia Polytechnical Institute in 1944 he began working with problems of analysis. He devoted his main attention at that time to the polarography of organic compounds. By combining analysis and hydrogenation, Aleksandr L'vovich completed a capital work on polarographic investigation of the hydrogenation of unsaturated organic compounds during the period between 1948 and 1952. He conducted a competent study of the kinetics of catalytic hydrogenation both of a series of individual organic compounds and of numerous binary and ternary combinations of them. Material yielded by this investigation formed the basis for his doctoral dissertation; this material was also published in a series of articles in the Zhurnal Obshchev Khimii (Journal of General Chemistry) and in the Uzbekskiy Khimicheskiy Zhurnal (The Uzbek Chemical Journal).

Aleksandr L'vovich also devoted his attention to certain other problems of analytical chemistry including the polarography of cadmium, lead, thallium and of their iodine compounds, the extraction method of determining small amounts of beryllium and so on.

In investigating the polarographic method of analysis, Professor Markman studied processes of trans-isomerization of a number of ethylene compounds and keto-enol transformations of a number of diketones under the influence of ultra violet radiation. He also used a peculiar form of polarography for the quantitative determination of the content of certain polymer derivatives (pectin, for instance) in vegetable fibers, and juices.

In 1954 Aleksandr L'vovich once again returned to work in the chemistry and technology of fats. He successfully used methods of mathematical statistics in studying the production processes, in developing indices for the commodity classification of cotton seed and for other purposes.

After becoming interested in gossypol, the most important pigment of cotton oil, Professor Markman developed, in collaboration with his assistants, a number of analytical methods of determining both natural gossypol and its various other forms. For that purpose

he successfully applied the polarographic, luminescence and the extraction methods of analysis.

Under the direction of Aleksandr L'vovich, methods of fractionation of fatty acid compounds, a method of freezing out acetone water solutions, a method of saponification of heavy metals with hydroxides, a method of degradation of solids, and other methods were worked out.

During recent years Aleksandr L'vovich devoted much time to the problem associated with the creation of new techniques for the processing of cotton seed, and aspires to create a system where it would be possible to extract from cotton seed and other industrially useful components, in addition to the extraction of high grade oil and oil-seed meal.

As a teacher Professor Markman made his contribution to the matter of training engineers specializing in fats, by publishing, in 1932 (in collaboration with Professor B.N. Tyutyuninkov), a two volume work entitled Tekhnologiya Zhirov (The Technology of Fats), in 1958 (in collaboration with Professors B.N. Tyutyuninkov and G.L. Yukhnovskiy), Tekhnologii Pererabotki Zhirov (The Technology of Processing Fats), and in 1952 he published a book entitled Osnovy Proyektirovaniya Maslozhirovoy Promyshlennosti (Bases of Planning in the Oil and Fat Industry).

Professor A.L. is responsible for ten inventions and many designs which were used to construct hydrogenation, soap and margarine plants. He published over 140 scientific works and 13 books, which were translated from the English, French and German languages.

His students include 20 candidates of technical and chemical sciences, many of whom are members of local nationality groups. As an official member of review boards he gave 80 opinions on candidate and doctoral dissertations. Being engaged in extensive scientific work at the Academy of Sciences Uzbek SSR and at the Central Asia Polytechnical Institute he is also at the same time the counselor for 12 aspirants and 20 scientific assistants.

Professor A.L. Markman created his own school in the field of polarography, chemistry and in the technology of vegetable fats. His work on these problems is well known beyond the borders of the Soviet Union. Many of his students, by using the knowledge they acquired from their teacher, are now successfully working in various fields of science and industry.

His work was justifiably praised at the 5th World Congress on the Chemistry of Fats in the Polish People's Republic in 1960.

Professor Markman was decorated with the Order of the Red Banner of Labor and with a medal for distinguished work during the Great Patriotic War; he also has three honor scrolls from the Presidium of the Supreme Soviet Uzbek SSR and bears the title of an honored scientific and technological worker of the Uzbek SSR.

In April of 1945 Aleksandr L'vovich was accepted as a candidate, and in 1946, as a member of the CPSU.

At the present time Professor A.L. Markman is working on a two volume monograph entitled Khimiya Zhirov (Chemistry of Fats).

We extend to our hero of the day our very best wishes for extended good health and for further creative successes for the benefit of our Motherland the Soviet science.

PETR NIKITICH ODINTSOV

Following is the translation of an unsigned article in Gidroliznava i Lesokhimicheskaya Promyshlennost', Vol. 14, No. 3, 1961, page 30. 7

The Presidium of the Supreme Soviet Latvian SSR by decree of 19 January 1961 awarded Petr Nikitich Odintsov an honorary scroll of the Presidium of the Supreme Soviet Latvian SSR in connection with his 70th birthday and the 30th year of his fruitful scientific activity.

P.N. Odintsov started his scientific work in 1930 at the Cotton Institute in Tashkent. While an assistant professor in the Department of Chemistry of the Institute, he at the same time directed the culluloid-paper laboratory of the Industrial Scientific Research Institute of Uzbekistan.

From 1933 to 1941 P.N. Odintsov was in charge of one of the laboratories at the Central Wood Chemistry Institute at Moscow. There he conducted research in the diffusion of concentrated hydrochloric acid into wood and the technology of the hydrolysis of wood by means of hydrochloric acid. He also did a lot of work in the chemistry of lignin and in the chemical composition of wood.

In 1944 P.N. Odintsov presented his candidate's dissertation. From 1945 to 1954 Petr Nikitich was an assistant professor with the department of chemical technology of wood at the Latvian State University.

In 1946 the Latvian Academy of Sciences was established. Petr Nikitich made a considerable contribution to the creation of the chemical departments and laboratories of the young Institute of Forestry of the Academy of Sciences Latvian SSR. He directs the Hydrolysis and Cellulose-Paper Production Laboratory, constantly training young scientists.

In 1951 P.N. Odintsov was elected a corresponding member of the Academy of Sciences Latvian SSR. After presenting his doctoral dissertation on the theme: "Structure of the Cell Wall of the Tracheid of Spruce Wood and its Influence on the Processes of Swelling, Hydrolysis and Adsorption," Petr Nikitich was awarded the degree of a doctor of chemical sciences, and then the title of professor.

In the course of his scientific work he published 95 works. Petr Nikitich is responsible for fundamental research in the kinetics of the hydrolysis of polysaccharides as well as the development



of the technology of hydrolysis of wood by means of concentrated acids. He made many contributions to the science of wood lignin and to the investigation of causes of anisotropic swelling and shrinkage of wood.

The theoretically substantiated and experimentally proved (by P.N. Odintsov) process of hydrolysis of wood by means of concentrated sulfuric acid is well known under the name of the Riga method of hydrolysis. The experimental installation created under P.N. Odintsov's direction permitted the development of a number of conditions of hydrolysis with large and small amounts of concentrated sulfuric acid.

In 1960 P.N. Odintsov was elected an active member of the Academy of Sciences Latvian SSR.

The editorial board of our magazine, which frequently publishes articles by P.N. Odintsov, warmly congratulates him with the award and wishes him good health and many years of fruitful scientific work for the benefit of our beloved Motherland.

NIKOLAY SERVEYEVICH POLUEKTOV

Following is the translation of an unsigned article in Zavodskaya Laboratoriya, Vol. 27, No. 3, 1961, page 366. 7

26 October 1960 marked the 50th birthday and the 27th anniversary since the beginning of the career of a distinguished Soviet chemical analyst, N.S. Poluektov. Nikolay Sergeyevich's scientific work, which is devoted to research in new methods of isolating and identifying rare elements with the aid of organic reagents, is well known both in the Soviet Union and abroad.

During the past several years his work in the development of a theory and the practical application of a method of flame photometry stands out as his most important and interesting work.

The analytical methods that he developed were put to practical use in many laboratories of our country and received widespread recognition.

Over 80 articles by N.S. Poluektov appeared in scientific periodicals; he also wrote a monograph entitled "Analytic Methods in the Photometry of Flame," which is devoted to the theory of the method and its practical application.

N.S. Poluektov took an active part in the work of an international commission engaged in the investigation of analytic reagents and reactions.

We extend out sincere greetings to N.S. Poluektov and wish him new creative successes.